SECRET

Com 2-6

IAC-D-103/6
11 February 1958

INTELLIGENCE ADVISORY COMMITTEE

Third Semi-Annual Report of

IAC Ad Hoc Committee on Exchanges

The attached Third Semi-Annual Report of the IAC Ad Hoc Committee on Exchanges, dated 11 February 1958, will be placed on the agenda of an early IAC meeting, for noting.

25X1A9a

[redacted]

Secretary

14 FEB 1958

13 FEB 1958

SECRET

IAC-D-103/6
11 February 1958

Third Semi-Annual Report of

IAC Ad Hoc Committee on Exchanges

I. Authorization

The IAC Ad Hoc Committee on Exchanges was established pursuant to IAC action of 28 February 1956, for the purpose of maximizing the intelligence yield from East-West delegation exchanges. IAC-D-103 has served as a guide and general terms of reference.

II. Organization

The Committee consists of representatives from the Departments of State, Army, Navy, Air Force, the Joint Staff, CIA, and AEC. USIA also attends on a regular basis. CIA provides the Chairman and the Secretariat. The Committee does not have a subcommittee structure but seeks the advice of existing substantive committees or subcommittees of IAC or appoints ad hoc groups for cases in which no extant group is competent.

III. Aims and Activities

This report covers the activities of the Committee during the period 1 June 1957 to 31 January 1958. As in the past, the Committee's activity has been largely dependent on the over-all progress of exchanges with the USSR and the Satellites. The principal development in this period has been the negotiations conducted on the US side by Ambassador Lacy, culminating in the agreement signed 27 January 1958. Prior to these negotiations, there was discussion, initiated by the Soviets, of the possibility of exchange visits extending for periods of three-six months, substantially longer than past practice; in the industrial field, however, these negotiations have led to no immediate result.

During the reporting period, actual exchange activity was not great, with many pending exchanges held in abeyance during the high-level negotiations with the Soviets. A total of only six exchanges were completed during the reporting period, of which three were with

Poland rather than the USSR.

In this situation, the principal activities of the Committee have been as follows:

a. Advising the Department of State on the intelligence aspects of exchanges and exchange proposals. In the early stage of the high-level negotiations, the Soviets presented a long list of exchange proposals in economic, scientific, and technical fields. In large part, these subjects had been previously considered by the Committee, which reviewed and supplemented previous work and provided support for the State Department on this area of the talks. This support has continued throughout the negotiations, with the Committee also submitting priority proposals for US initiative, again from previously considered projects. Although only three of the projects reviewed have been specifically covered by the Agreement (steel, iron ore, and plastics), it is anticipated that other industrial projects will materialize over the next year.

Earlier, at the time of the Soviet proposal of longer term exchange visits, the Committee reviewed the 14 fields suggested by the Soviets and provided customary estimates of net intelligence advantage, together with suggestions of four additional fields for US initiative.

Apart from proposals originating via the negotiations, a number of private US groups and institutions have come forward during the reporting period with proposals involving exchanges, and these have been similarly reviewed by the Committee.

In the aggregate, apart from updating previous reviews, the Committee has assessed from the intelligence standpoint and advised the Department of State concerning 10 short-term exchanges, and 14 long-term exchanges, and has under consideration at the present time seven proposals initiated by private US groups.

b. Suggesting exchange proposals for US initiative. Apart from the four priority long-term proposals mentioned above and revising and assigning priority to several proposals previously submitted, the Committee has not been active in this area in view of the substantial backlog already available.

c. Assisting in the carrying out of exchanges. In this field, Committee activity has increased noticeably. The technical consultants for 13 different exchange proposal fields have provided support for the Department of State during the reporting period. In some cases the support has required several conferences with the US industrial group involved, both alone and in company with the Department of State representatives. In this way the current developments in intelligence constantly are brought to bear on the negotiations in the various fields. This is not to say that the intelligence suggestions are always carried out, since on occasion private or policy aims are overriding.

d. Coordinating intelligence interest and activities. Since exchange activity was not great during this period, the mechanisms for coordination in briefing or debriefing were not given a true test. In most cases, however, performance lends confidence to the belief that the procedures are fundamentally sound.

e. Evaluating the exchange program. In response to an informal request from the Department of State, the Committee has prepared an evaluation of the intelligence results of the exchange program as conducted since February 1956, when the Committee was created by the IAC. In effect, this evaluation--attached hereto as Annex A--constitutes an updating of IAC-D-103, the original IAC assessment of the exchange problem and prospects. In submitting it, the Committee wishes to emphasize the interim and incomplete nature of the conclusions reached regarding the total exchange program, in the light of the fact that the conduct of exchanges with the USSR over these two years

has been spasmodic and has not included as yet any substantial number of the projects to which the Committee has devoted most of its attention.

IV. Prospects and Emerging Problems

The agreement signed with the Soviets on 27 January 1958 gives clear promise of a substantial increase in exchange activity. This is particularly true of scientific areas and the area of education with which this Committee has not hitherto been substantially concerned. A number of specific projects in agriculture and medicine have been agreed to. In other technical and industrial areas few specific projects were approved. However, as indicated above, additional projects are expected to develop during the year.

With reference to the funding problem--extensively discussed in past reports of the Committee--developments during the reporting period gave promise of great improvement. It now appears virtually certain that substantially increased funds will be available both from within the IAC and from private companies and organizations, which have shown much greater interest in observing Soviet developments than in the past.

In the aggregate, the prospect seems far more clear than at any time in the past for a marked expansion in exchange activity over the next year. Through the activities of its members, technical consultants and secretariat, the Committee is in constant touch with developments, and stands ready to provide the support necessary to a developing program.

ANNEX A to
IAC-D-103/6
11 February 1958

Interim Evaluation of the Intelligence Aspects of the East-West Exchange Program

1. Summary of activity. Prior to the time the IAC Ad Hoc Committee on Exchanges was established, February 1956, there were two major official exchanges, Agricultural and Automation. Since that time there have been ten more exchanges, seven with the USSR and three with Poland. The volume of formal exchanges has thus been small. There has, however, been a very substantial volume of non-exchange travel, attendance at conferences, etc., which has provided additional evidence of present and potential intelligence value in this area.

2. General evaluation. The formula developed in IAC-D-103 and used since by the IAC Ad Hoc Committee on Exchanges for weighing exchanges is a balance of US intelligence gain versus Soviet intelligence and technological gain. Under this formula, the twelve exchanges to date would result, in our judgment, in a moderate net advantage to the US.

This judgment can best be explained by touching on the pertinent factors in each of the twelve exchanges. The Agricultural and Automation exchanges were carried out prior to the creation of the Committee as the medium for organized intelligence support. In the case of the Agricultural exchange, as mentioned in IAC-D-103, the Soviets refused to supply detailed information promised the US delegation. This, together with the fact that the US showed the Soviet delegation all items and installations in which they expressed an interest, resulted in a slight US deficit. In the Automation case, on the other hand, US industry was quite restrictive in its hospitality to the USSR delegation, and the US group visited about eleven Soviet installations which had not been seen by US specialists since World War II. The advantage in this case was to the US.

In the third completed exchange, Epidemiology, in 1956, both delegations were quite satisfied with the treatment they received, with the exception of the fact that the US group was not permitted to visit Soviet military-medical installations. The US delegation

brought back samples of vaccines, medical literature, and substantial information on Soviet medical research. The Soviet delegation was technically competent and probably made some gains from visiting US research institutes. In this case, the net gain probably was to the US because of comparative availability of information.

In the Housing exchange, also completed in 1956, there was probably little gain on either side. Most of the US methods observed by the Soviets were well known and while more advanced, could not be easily applied in the Soviet building industry. The US delegation confirmed a number of facts and learned certain relationships of aid to US analysts of the Soviet housing problem.

The Mass Feeding exchange (1956-57) had only a limited intelligence interest since military installations were eliminated. The net gain was probably to the US since little technical information could have been obtained by the Soviets.

In the case of the Radio Engineering Conference-Tours (early 1957), neither delegation was satisfied with the tour it received, but the US team was highly qualified and they made worthwhile observations and obtained equipment samples that were of substantial value. Net gain was probably to the US.

Three 1957 exchanges with Poland, housing, steel, and coal, were well organized. The US teams were afforded access to all installations of interest and were able to obtain answers to all questions. In the interest of political relations with Poland, the Polish teams were also well treated. The factor limiting US gain here was the relatively low priority of our need for intelligence on Poland in these fields, so that the net gain was probably on the Bloc side.

The Peat-Taconite exchange with the USSR in 1957 was estimated by the Committee in the planning stage to be to the net disadvantage of the US. This estimate was probably valid. Although the Soviets were quite fair in showing the US delegation all aspects of their peat processing and research, the taconite processing is of

a higher strategic value and the Soviet attitude indicated that, even though they were fully familiar with US literature, the observations were of value. The net US disadvantage was probably slight because the US got Soviet iron reserve information from the visitors.

The negotiations in the Public Health exchange resulted in minimum acceptable tours. As a result there was limited gain for either side, probably about even.

In the last exchange, the Scientific Metallurgical exchange, all reports are not available, and a fair judgment cannot, therefore, be rendered. Preliminarily, it seems that the US delegation acquired a good deal of worthwhile information. The Soviet delegation, on the other hand, was afforded a slightly better tour than the US delegation, including one installation which they have been striving to visit for the past two years.

3. Non-exchange travel. As indicated earlier, additional evidence of intelligence potential has been provided through the substantial amount of conference attendance, much of which was on a loosely reciprocal basis. In many cases the US received information of value, both from Soviet attendees at conferences in the US and from US attendees at Soviet conferences. It is more difficult to estimate the Soviet gain involved in conference attendance since much of it undoubtedly stemmed from extended conversations with US scientists, rather than from the papers presented or the exhibits viewed, which were in all cases reviewed from a security standpoint.

4. Specific items of US gain. Assessing the total intelligence results of exchange and travel, we believe the US has gained more significant intelligence in the important field of radio-electronics than in any other. In the first place, the large number of US-USSR contacts have made possible a more realistic assessment of the "state of the art" in the USSR. Until recently the Soviet electronics capability was underestimated in many respects. Many interesting details of Soviet accomplishments and difficulties in the components field were brought out. Among these were the fact that civilian TV and radio set subassemblies are manufactured to military specifications, information on factory costs, sales price,

wage structure, incentive systems, problems and procedures under the decentralization policy, projected growth rates for electronics output, projected plan acceleration of Soviet microwave relay systems, and the fact that the Soviets have a total of twenty-four TV transmitters. Deficiencies such as inadequate life-testing, rough handing and contamination of parts, difficulties in development of wide band microwave equipment, and dependence on East Germany for ionospheric sounders, were all detected. Also, indications that the USSR may be ahead of the US in knowledge of scattering properties of finite cylinders, and the first indication that the Soviets were going to use the 20-40 megacycles frequencies for earth satellite radio transmissions were uncovered in various contacts.

In the metallurgical fields, despite the fact that the results are not in on the largest exchange, some useful items were developed. The nature of the USSR iron ore reserves and significant information in the field of high temperature alloys, particularly molybdenum, were revealed.

In the medical field, viral and bacterial agents which were under study in the USSR were brought to the US as were samples of new vaccines. The many visits by medical specialists have improved our capabilities for estimating the medical picture of the USSR.

In the housing field, statements from high Soviet officials clarified ambiguities in official Soviet statements which had puzzled US analysts for some time. Information on constructure costs, urban planning, and types of dwellings, provided background for an Air Force dynamic load analysis of recent Soviet construction, as well as material for other surveys. Material bearing on the Soviet manufacture of ball bearings and the operation of motor vehicle and tractor plants was also supplied by delegation members. Other information provided clarification of Soviet demographic and labor force data. Observation by members of the US delegation may prove to be of value in assessing current status of the Soviet Civil Defense Program.

In the scientific field, a great deal was learned about general and specific capabilities. This included unmistakable evidence that Soviet physicists are fully aware of the fundamental problems of theoretical physics and are engaged in advanced work in the quantum field theory. (Specific information on location and characteristics of the 10-BEV-proton synchrotron and the proposed 50-BEV-particle acceleration was also obtained, but it seems the Soviets were happy to exhibit these.) At one meeting, several papers heretofore restricted to the USSR were made available.

Nearly every planned Soviet contact has contributed some details which aid in the general analysis of various Soviet economic and scientific sectors. A knowledge of the "state of the art," the extent of the application of technology, the quality of the human agent that applies to technology, and the various statistical clarifications are all necessary to accurate predictions of future capabilities. The great volume of biographic information obtained under the program is extremely useful to various intelligence problems. There is, in addition, an intangible but real gain in the incidental information derived from conversations that has contributed substantially to our knowledge of social and economic conditions in the USSR.

5. Specific items of Soviet gain. The task of compiling specific details on the Soviet gain is much more difficult. There are no known instances in which the Soviets were permitted to see classified or closely held US projects. The amount of technical information the Soviet delegations have gained from observations can only be estimated when significant changes in policy or methodology directly reflect such observation. No specific instance of such changes, except the agricultural ones mentioned in IAC-D-103, is now known, although admittedly sufficient time has not elapsed to permit extensive changes to show up. One possible indication that the Soviets may not have learned as much as desired from the tours to date is the constant complaint that they are not given sufficient time in any one place, and the fact that the Soviets have recently stressed long-term exchanges.

On the other hand, one US physicist stated that the Soviet professor Vekaler had a terrific capacity for observation, analysis,

and retention, and carried back to his country as much information as "any ten US scientists" could absorb in a visit. Such indications of interest as the surreptitious pocketing of a tube part by a Soviet delegate, close inspection of a die-making technique not known to be in use in the USSR, and detailed study of the new fully automatic grid machine at a US plant showed possibilities of small specific gains, even though the items have been fully publicized in the US. In personal contact between Soviet and US scientists and technical personnel, it appears probable that the US representatives have spoken somewhat more freely than the Soviets and that the Soviets have derived considerable technical benefit from such contacts.